

REMARKS

In the Office Action, the Examiner objected to the drawings, rejected claims 11, and 21 - 23 under the second paragraph of section 112, rejected claims 1 - 3, 9 and 24 as anticipated by Bick US Patent 4,571,752, rejected claims 1, 2, 5, 7, 8, 14 and 16 as obvious over Baus US Patent 4,965,894, rejected claims 17 and 18 as obvious over Baus in view of Conway US Patent Application Publication 2003/0084505, rejected claims 1 - 6, 13, 14 and 19 - 24 as obvious over Leonard et al. US Patent Application Publication 2004/0040074 in view of Scoggins US Patent 5,603,126, rejected claims 10 - 12 as obvious over Bick in view of Reals US Patent 5,918,320, rejected claim 15 as obvious over Leonard in view of Scoggins and further in view of Billeter et al. US Patent 3,695,288, and made additional art of record.

Drawing Objection

A new drawing showing Figure 3 is submitted herewith. Figure 3 shows the system of Figure 1 with the optional electronically activated triggering mechanism 50 and motion detector (to which the reference number 52 is now assigned) as described in the specification at paragraphs [0012] and [0020]. No new matter is added since the specification and claims as originally filed disclosed the electronic triggering mechanism and motion sensor.

Paragraphs [0017] and [0020] of the specification have been amended to refer to new Figure 3. No new matter is added by the amendments.

35 USC §112, 2nd ¶

Claim 11 is amended to provide antecedent basis for the cistern.

Claims 20 - 24 have been amended to clarify the dependent relationships between the claims and to provide antecedent basis for the terms.

Applicant submits that the rejection is overcome.

35 USC §102(b)

The Examiner rejects original claim 1 as lacking novelty under 35 USC §102 in view of Bick US Patent 4,571,752. Bick is directed to a sanitary system aimed at reducing splashing when the toilet is used. This is achieved by a surfactant storage and dispensing system,

dispensing the surfactant to the toilet bowl and an air supply system which discharges air into the bowl at periodic intervals to produce foam.

The invention disclosed in amended claim 1 provides a system for generating foam in a sanitary appliance. The sanitary appliance comprises a dosing device for dispensing a dosage of a foaming substance, a receptacle for the purpose of retaining the dispensed dosage of the foaming substance and an agitation mechanism to agitate the dosage of the foaming substance retained in the receptacle. It also comprises a triggering mechanism, the triggering mechanism serving the dual purpose of activating a supply of a first supply of fluid and activating a supply of a second supply of fluid. The first supply of fluid is arranged to come into contact with the substance capable of foaming in the dosing device for the purpose of dispensing the dosage of the foaming substance and transporting it to the receptacle. The second supply of fluid supplies fluid to the agitation mechanism for the purpose of agitating the dispensed dosage of the foaming substance. It is evident from amended claim 1 that the triggering mechanism serves a dual function, one to dispense the substance and transport it and the other to agitate the dispensed substance.

The amended Claim 1 is clearly novel over Bick which does not disclose the following features of amended claim 1:

- (a) a triggering mechanism for activating a supply of a first supply of fluid to supply fluid into contact with the substance capable of foaming, to dispense and transport the substance to the receptacle; and
- (b) the triggering mechanism for activating a supply of a second supply of fluid to supply fluid to the agitation mechanism to agitate the foaming substance in the receptacle.

With regards to feature (a), Bick discloses an additive supply portion to dispense the additive (surfactant) to the toilet bowl, which is operated by a piston arrangement, the piston arrangement actuated by the level of water in the tank. The pressure imparted by the piston arrangement helps in transporting the additive to the toilet bowl through a conduit. Bick does not disclose the fluid supply coming into contact with the substance capable of foaming for the purpose of dispensing and transporting the substance.

With regards to feature (b), Bick discloses an air supply portion operated by a motor and a cam member to discharge air into the bowl for the purpose of agitating the additive and producing foam. Bick lacks a disclosure or teaching to use the fluid supply for dispensing the additive, to agitate the substance to generate foam.

Thus, amended claim 1 is clearly novel over Bick.

Furthermore, amended claim 1 is clearly non-obvious in view of Bick. Firstly, the invention disclosed in amended claim 1 provides the advantage of using the triggering mechanism for dispensing the substance capable of foaming and transporting it to the receptacle and at the same time agitating the foaming substance in the receptacle. This is achieved by activating a supply of the first supply of fluid and a supply of the second supply of fluid. Bick discloses that the triggering mechanism for dispensing the additive is different from that for agitating the dispensed additive. Accordingly, the invention of amended claim 1 is clearly an improvement over the teachings of Bick.

Secondly, Bick discloses an additive dispensing system to dispense the additive to the toilet bowl and an air supply system for producing foam in the toilet bowl. The two systems are distinct from each other with respect to their construction and operating mechanisms, with the additive dispensing system based on a piston arrangement actuated by the level of water in the tank and the air supply system run by a motor and a cam. It is inconceivable that a person skilled in the art will think of combining the additive dispensing system and the air supply system, by virtue of the differences stated above, for the purpose of adapting the teachings of Bick to arrive at the invention taught by amended claim 1.

Moreover, if the agitation system in Bick uses a second supply of fluid, the agitation of the substance capable of foaming will not be accomplished at all.

Thus, amended claim 1 is therefore both new and non-obvious over Bick.

35 USC §103(a)

The invention disclosed in amended claim 1 provides a system for generating foam in a sanitary appliance. The sanitary appliance comprises a dosing device for dispensing a dosage

of a foaming substance, a receptacle for the purpose of retaining the dispensed dosage of the foaming substance and an agitation mechanism to agitate the dosage of the foaming substance retained in the receptacle. It also comprises a triggering mechanism, the triggering mechanism serving the dual purpose of activating a supply of a first supply of fluid and activating a supply of a second supply of fluid. The first supply of fluid is arranged to come into contact with the substance capable of foaming in the dosing device for the purpose of dispensing the dosage of the foaming substance and transporting it to the receptacle. The second supply of fluid supplies fluid to the agitation mechanism for the purpose of agitating the dispensed dosage of the foaming substance. It is evident from amended claim 1 that the triggering mechanism serves a dual function, one to dispense the substance and transport it and the other to agitate the dispensed substance.

The Examiner rejects claim 1 under 35 USC 103 in view of Baus US Patent 4,965,894. Baus is directed to a mixing device for showers or baths, for mixing hot and cold water. The temperature of the mixed water can be set on the device. This mixing device also facilitates adding preparations such as lotion, shampoo, showering agent etc to the mixed water. The supply of the mixed water or the preparation mixed with water is through a shower head.

As described earlier, in the invention disclosed by amended claim 1, the triggering mechanism, apart from activating a first supply of fluid to dispense the substance capable of foaming and transporting it to the receptacle, also activates a second supply of fluid to agitate the dispensed substance. Baus teaches dispensing the preparation from the containers either using pumps or solenoid valves (Please refer to Col. 4, lines 18 to 30 of Baus). According to Baus, the water output line (line 8 in Fig 1) and the preparation output lines (lines 50 and 51 in Fig 1) are distinct from each other and are located at a distance from each other. In this situation, it is inconceivable that a person skilled in the art would be motivated towards using the mixed water for dispensing the preparation by means of physical contact between the mixed water and the preparation.

Further, if the water output line in Baus was for dispensing the preparation from the preparation container, the pump or solenoid becomes redundant.

Therefore, Applicant submits that amended claim 1 is clearly non-obvious in view of Baus.

The Conway US Patent Application Publication 2003/0084505 in combination with Baus fails to provide the missing features to Baus so claims 17 and 18 are also non-obvious over the cited art. In particular, the system for generating foam in a sanitary appliance that includes a dosing device for dispensing a dosage of a foaming substance, a receptacle for the purpose of retaining the dispensed dosage of the foaming substance and an agitation mechanism to agitate the dosage of the foaming substance retained in the receptacle. It also comprises a triggering mechanism, the triggering mechanism serving the dual purpose of activating a supply of a first supply of fluid and activating a supply of a second supply of fluid. The first supply of fluid is arranged to come into contact with the substance capable of foaming in the dosing device for the purpose of dispensing the dosage of the foaming substance and transporting it to the receptacle. The second supply of fluid supplies fluid to the agitation mechanism for the purpose of agitating the dispensed dosage of the foaming substance. It is evident from amended claims that the triggering mechanism serves a dual function, one to dispense the substance and transport it and the other to agitate the dispensed substance.

The Examiner has rejected original claim 1 under 35 USC 103 (obviousness) over Leonard in view of Scoggins.

Leonard US Patent Application Publication 2004/0040074 teaches a device for dispensing toilet bowl treatment preparations, such as a cleaning liquid etc, the device being positioned under the rim of the toilet bowl, and the flowing water arranged to mix with the preparation and carry it to the toilet bowl. The preparation is contained inside a bottle and is carried to a wicking device by capillary action. The water when it flows comes into contact with the wicking device, mixes with the preparation and carries the solution to the toilet bowl.

Scoggins US Patent 5,603,126 teaches a toilet disinfectant dispenser for use within a tank having a lid. The dispenser is positioned inside the tank and contains a container in which a soluble disinfectant is contained within. There is a water inlet and outlet connected to the

container of the dispenser. Every time the tank is flushed, some water enters the container, dissolves a small portion of the disinfectant and carries the solution to the toilet bowl.

First and foremost, a combination of Leonard and Scoggins fails to disclose all the features of amended claim 1. Amended claim 1 requires that a triggering mechanism for activating a supply of a first supply of fluid to supply fluid into contact with the substance capable of foaming, thereby to dispense the dosage of the substance capable of foaming and transport it to the receptacle and activating a supply of a second supply of fluid to supply fluid to the agitation mechanism for the agitation mechanism to agitate the dispensed dosage of the substance capable of foaming in the receptacle. Leonard is not concerned with a first supply and a second supply of fluid, as Leonard discloses only a single flow of fluid over the wicking device. Moreover, Scoggins is not concerned with any agitation for the purpose of generating foam.

Without prejudice to the submission above, there is, additionally, no suggestion that Leonard and Scoggins provide compatible teachings, which the skilled person, seeking to arrive at the invention of amended claim 1, would combine. As noted, Leonard is concerned with a device that is arranged to be positioned under the rim of the toilet bowl, whereas Scoggins is concerned with a device that is arranged inside the tank of the toilet. The operating mechanism and construction being completely different, it is inconceivable that a person skilled in the art would seek to adapt Leonard's teachings with those of Scoggins.

Moreover, if a water inlet tube was used for dispensing the preparation in Leonard, the wicking device becomes redundant.

Therefore, Applicant submits that amended claim 1 is clearly non-obvious over the combination of Leonard and Scoggins.

Claims 10 – 12 depend from claim 1 and at least for the same reasons as set forth above are non-obvious. As such the combination of Bick with Reals US Patent 5,918,320 fails to obviate the claimed invention. Likewise, the combination of Leonard and Scoggins with Billeter et al. US Patent 3,695,288 fails to obviate the invention defined in claim 15.

Thus, the independent claims are patentable over all the prior art. The dependent claims, by virtue of their dependencies at least, are also patentable.

Additional Art

The additional art cited by the Examiner but not relied upon is noted by the Applicants.

Conclusion

Applicants respectfully request favorable reconsideration and allowance of the present application in view of the forgoing.

Deposit Account Information

The Commissioner is hereby authorized to charge any additional fees which may be required or to credit any overpayment to account no. 501519.

Respectfully submitted,



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